

**IN THE CLAIMS:**

**Please amend the claims to read as follows:**

1. (Currently amended) An information transmission method, whereby ~~information~~ a message packet from a source terminal, said source terminal being one of multiple terminals, is relayed and forwarded by another terminal, said method comprising ~~the steps of~~:

calculating an information progress vector that represents ~~the~~ a progress of ~~information~~ said message packet;

calculating a terminal progress vector that represents ~~the~~ a travel performed by a specific terminal among said multiple terminals;

calculating a cosine ( $\cos\theta$ ) of an angle  $\theta$  formed by said information progress vector and said terminal progress vector;

determining ~~that~~ whether said  $\cos\theta$  is equal to or greater than a predetermined value; and

halting a transmission of said ~~information~~ message packet from said specific terminal when ~~the~~ a decision of said determining is false.

2. (Currently amended) The information transmission method according to claim 1, further comprising ~~the step of~~:

transmitting said ~~information~~ message packet from said specific terminal when the decision of said determining is true.

3. (Currently amended) The information transmission method according to claim 1,

wherein said information progress vector is calculated by ~~the~~ an arbitrary use of two or more kinds of a positional information selected from among;

a positional information for said transmission source terminal included in said information,

a positional information for other terminals, excluding said transmission source terminal, where information is delayed, and

a positional information obtained by said specific terminal; and

wherein said terminal progress vector is calculated by using current and past positional information obtained by said specific terminal.

4. (Currently amended) The information transmission method according to claim 3, wherein said positional information is obtained by a first method whereby a positional information for a base station is obtained by a terminal that is controlled by said base station, ~~and is~~ said base station positional information used as said positional information of said terminal, or a second method for using a GPS (Global Positioning System).

5. (Original claim) The information transmission method according to claim 1, wherein said predetermined value is 0.

6. (Currently amended) The information transmission method according to claim 1, wherein a density information for a terminal is obtained, and when ~~the~~ a relationship  $s < |x - d|$  is

09/866,352  
JP9-2000-0044  
YOR563

established for a distance  $s$  between said specific terminal and a terminal that transmits information to said specific terminal, a communication limit distance  $x$  that is reached by a radio signal sent by said terminal, and an average inter-terminal distance  $d$ , the transmission of said information message packet by said terminal is inhibited.

7. (Currently amended) The information transmission method according to claim 6, further comprising ~~the steps of~~:

requesting ~~the~~ a transmission of a positional information by other terminals;

receiving said positional information from said other terminals; and

calculating an inter-terminal distance by using said positional information of said specific terminal and said positional information for said other terminals, and calculating ~~the~~ an average of said inter-terminal distances and obtaining said distance  $d$ .

8. (Currently amended) An information transmission system, wherein multiple terminals, including means for obtaining a location and means for exchanging information by radio, are provided, and wherein one of said terminals receives ~~information a message packet~~ from one of the remaining terminals and forwards said information message packet to another terminal, said system comprising:

means for calculating an information progress vector that represents ~~the~~ a progress of information said message packet;

means for calculating a terminal progress vector that represents ~~the~~ a travel performed by a specific terminal among said multiple terminals;

means for calculating a cosine ( $\cos\theta$ ) of an angle  $\theta$  formed by said information progress vector and said terminal progress vector;

means for determining ~~that whether~~ said  $\cos\theta$  is equal to or greater than a predetermined value; and

means for halting transmission of said ~~information- message packet~~ from said specific terminal when ~~the~~ a decision of said means for determining is false.

9. (Currently amended) The information transmission system according to claim 8, further comprising:

means for transmitting said ~~information- message packet~~ from said specific terminal when the decision of said means for determining is true.

10. (Currently amended) The information transmission system according to claim 8, further comprising:

means for calculating said information progress vector by ~~the~~ an arbitrary use of two or more kinds of a positional information selected from among:

a positional information for ~~said~~ a transmission source terminal included in said information,

a positional information for other terminals, excluding said transmission source terminal, where information is relayed, and

a positional information obtained by said specific terminal; and  
means for calculating said terminal progress vector by using current and past positional information obtained by said specific terminal.

11. (Currently amended) The information transmission system according to claim 10, further comprising: ~~either means~~ one of:

first means for obtaining positional information for a base station at a terminal that is controlled by said base station, and for using said positional information of said base station as said positional information of said terminal, ~~or~~ and

a second means for using a GPS (Global Positioning System).

12. (Original claim) The information transmission system according to claim 8, wherein said predetermined value is 0.

13. (Currently amended) The information transmission system according to claim 8, further comprising:

means for obtaining a density information for a terminal; and

means for inhibiting ~~the~~ a transmission of said ~~information message packet~~ when ~~the~~ a relationship  $s < |x - d|$  is established for a distance  $s$  between said specific terminal and a terminal

that transmits information to said specific terminal, a communication limit distance  $x$  that is reached by a radio signal sent by said terminal, and an average inter-terminal distance  $d$ .

14. (Currently amended) The information transmission system according to claim 13, further comprising:

means for requesting ~~the~~ a transmission of a positional information by other terminals;

means for receiving said positional information from said other terminals; and

means for calculating an inter-terminal distance by using said positional information of said specific terminal and said positional information for said other terminals, and calculating ~~the~~ an average of said inter-terminal distances ~~and for~~ obtaining said distance  $d$ .

15. (Currently amended) An information terminal, including means for obtaining a location and means for exchanging ~~information message packets~~ by radio, said information terminal comprising:

means for calculating an information progress vector that represents ~~the~~ a progress of ~~information~~ a message packet;

means for calculating a terminal progress vector that represents ~~the~~ a travel performed by a specific terminal among said multiple terminals;

means for calculating a cosine ( $\cos\theta$ ) of an angle  $\theta$  formed by said information progress vector and said terminal progress vector;

means for determining ~~that~~ whether said cost is equal to or greater than a predetermined value; and

means for halting ~~the~~ a transmission of said ~~information message packet~~ from said specific terminal when ~~the~~ a decision of said means for determining is false.

16. (Currently amended) The information terminal according to claim 15, further comprising:

means for transmitting said ~~information message packet~~ when the decision of said means for determining is true.

17. (Currently amended) The information terminal according to claim 15, further comprising:

means for calculating said information progress vector by ~~the~~ an arbitrary use of two or more kinds of a positional information selected from among:

a positional information for said a transmission source terminal included in said ~~information message packet~~,

a positional information for other terminals, excluding said transmission source terminal, where information is relayed, and

a positional information obtained by said information terminal; and

means for calculating said terminal progress vector by using current and past positional information obtained by said information terminal.

18. (Original claim) The information terminal according to claim 15, wherein said predetermined value is 0.

19. (Currently amended) The information terminal according to claim 15, further comprising:

means for requesting ~~the a~~ transmission of positional information by other terminals;

means for receiving said positional information from said other terminals;

means for calculating an inter-terminal distance by using said positional information of said information terminal and said positional information for said other terminals, and calculating ~~the an~~ average of said inter-terminal distances ~~and for~~ obtaining ~~the an~~ average inter-terminal distance d; and

means for inhibiting ~~the a~~ transmission of said information when ~~the a~~ relationship  $s < |x - d|$  is established for a distance s between said information terminal and a terminal that transmits information to said information terminal, a communication limit distance x that is reached by a radio signal sent by said terminal, and an average inter-terminal distance d.

20. (Currently amended) ~~An information recording medium for storing a program code for~~  
A signal-bearing medium tangibly embodying a program of machine-readable instructions  
executable by a digital processing apparatus to perform a method of receiving information- a  
message packet from a terminal and forwarding said information message packet to another  
terminal, said program code of machine-readable instructions comprising:



a ~~program code~~ an information progress vector calculator module for calculating an information progress vector that represents ~~the a~~ progress of ~~information~~ said message packet;

a ~~program code~~ a terminal progress vector calculator module for calculating a terminal progress vector that represents ~~the a~~ travel performed by said information terminal among said multiple terminals;

a ~~program code~~ cosine calculator for calculating a cosine ( $\cos\theta$ ) of an angle  $\theta$  formed by said information progress vector and said terminal progress vector;

a ~~program code~~ decision module for determining ~~that whether~~ said  $\cos\theta$  is equal to or greater than a predetermined value; and

a ~~program code~~ transmit control module for transmitting said information when ~~the a~~ decision output of said decision module is true and for halting transmission of said ~~information message packet~~ when ~~the an output of said decision module~~ is false.

21. (New) A message packet distribution method in a radio communication distribution system, said method comprising:

receiving, in a receiving terminal, a message packet having been transmitted from a source terminal;

calculating, in said receiving terminal, an information progress vector representing a direction said received message packet is progressing away from said source terminal;

determining, in said receiving terminal, whether said received message packet should be forwarded, based on said information progress vector; and

transmitting said received message packet from said receiving terminal based on said determining.

22. (New) The message packet transmission method of claim 21, further comprising:

calculating, in said receiving terminal, a terminal progress vector representing a motion of said receiving terminal; and

using said terminal progress vector as a factor in said determining whether said received message packet should be forwarded.

23. (New) A terminal in a radio communication distribution system, said terminal comprising:

a receiver that receives a message packet having been transmitted from a source terminal;  
an information progress vector calculator that calculates an information progress vector representing a direction said received message packet is progressing away from said source terminal;

a decision module that determines whether said received message packet should be forwarded, based on said information progress vector; and

a transmitter that transmits said received message packet based on said determining by said decision module.

09/866,352  
JP9-2000-0044  
YOR563

24. (New) The terminal of claim 23, further comprising:

a terminal progress vector calculator that calculates a terminal progress vector representing a motion of said receiving terminal,

wherein said decision module uses said terminal progress vector as a factor in said determining whether said received message packet should be forwarded.